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(71) Applicant *(for all designated States except US)*: **MERCK SHARP & DOHME LIMITED** [GB/GB]; Hertford Road, Hoddesdon, Hertfordshire EN11 9BU (GB).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **BLURTON, Peter** [GB/GB]; Terlings Park, Eastwick Road, Harlow, Essex CM20 2QR (GB). **BURKAMP, Frank** [DE/GB]; Terlings Park, Eastwick Road, Harlow, Essex CM20 2QR (GB). **FLETCHER, Stephen, Robert** [GB/GB]; Terlings Park, Eastwick Road, Harlow, Essex CM20 2QR (GB). **HOLLINGWORTH, Gregory, John** [GB/GB]; Terlings Park, Eastwick Road, Harlow, Essex CM20 2QR (GB). **JONES, A., Brian** [GB/GB]; Terlings Park, Eastwick Road, Harlow, Essex CM20 2QR (GB). **MCIVER, Edward, Giles** [GB/GB]; Terlings Park, Eastwick Road, Harlow, Essex CM20 2QR (GB). **MOYES, Christopher, Richard** [GB/GB]; Terlings Park, Eastwick Road, Harlow, Essex CM20 2QR (GB). **ROGERS, Lauren** [GB/GB]; Terlings Park, Eastwick Road, Harlow, Essex CM20 2QR (GB).

(74) Agent: **HORGAN, James, Michael, Fred**; European Patent Department, Terlings Park, Eastwick Road, Harlow, Essex CM20 2QR (GB).

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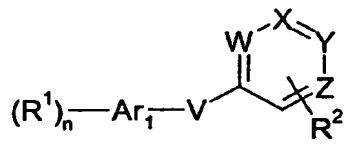
(54) Title: AMINO-HETEROCYCLES AS VR-1 ANTAGONISTS FOR TREATING PAIN



(I)

(57) Abstract: the present invention provides a compound of formula (I): wherein V represents NR^5, O, S, SO or $S(O)_2$; W and X each independently represent CH or N; Y represents N, CH or C-Ar_2, with the proviso that at least one, but no more than two, of W, X and Y are N; Z represents CH or C-Ar_2, with the proviso that when Y is N or CH then Z is C-Ar_2, and with the further proviso that when Y is C-Ar_2 then Z is CH; Ar_1 represents a fused 9 or 10 membered heterobicyclic ring system containing one, two, three or four heteroatoms selected from nitrogen, oxygen and sulfur, wherein at least one of the rings in said ring system is aromatic; Ar_2 represents an aromatic ring selected from phenyl, pyridyl, pyrimidinyl and pyridazinyl which is optionally fused and substituted; R^1 represents halogen, hydroxy, oxo, C_{1-6}alkyl, C_{2-6}alkenyl, C_{2-6}alkynyl, haloC_{1-6}alkyl, hydroxyC_{1-6}alkyl, C_{1-6}alkoxy, haloC_{1-6}alkoxy, hydroxyC_{1-6}alkoxy, C_{3-7}cycloalkyl, C_{3-7}cycloalkoxy, C_{3-5}cycloalkylC_{1-4}alkyl, cyano, nitro, SR^6, SOR^6, SO_2R^6, COR^6, NR^3COR^6, $CONR^3R^4$, $NR^3SO_2R^6$, $SO_2NR^3R^4$, -$(CH_2)_m$carboxy, esterified -$(CH_2)_m$carboxy or -$(CH_2)_mNR^3R^4$; R^2 represents hydrogen, halogen, hydroxy, C_{1-6}alkyl, haloC_{1-6}alkyl, C_{3-7}cycloalkyl, C_{1-6}alkoxy, haloC_{1-6}alkoxy, unsubstituted phenyl or phenyl substituted with one or two groups selected from halogen, C_{1-6}alkyl, haloC_{1-6}alkyl, C_{3-7}cycloalkyl, C_{1-6}alkoxy or haloC_{1-6}alkoxy; R^3 and R^4 are each independently hydrogen, C_{1-6}alkyl, C_{2-6}alkenyl, C_{2-6}alkynyl, C_{3-7}cycloalkyl or fluoroC_{1-6}alkyl; or R^3 and R^4 and the nitrogen atom to which they are attached together form a heteroaliphatic ring of 4 to 7 ring atoms, optionally substituted by one or two groups selected from hydroxy or C_{1-4}alkoxy, which ring may optionally contain as one of the said ring atoms an oxygen or a sulfur atom, S(O), $S(O)_2$, or NR^5; R^5 represents hydrogen, C_{1-4}alkyl, hydroxyC_{1-4}alkyl or C_{1-4}alkoxyC_{1-4}alkyl; R^6 represents hydrogen, C_{1-6}alkyl, fluoroC_{1-6}alkyl, C_{3-7}cycloalkyl, unsubstituted phenyl, or phenyl substituted with one or two groups selected from halogen, C_{1-6}alkyl, haloC_{1-6}alkyl, C_{3-7}cycloalkyl, C_{1-6}alkoxy or haloC_{1-6}alkoxy; m is either zero or an integer from 1 to 4; n is either zero or an integer from 1 to 3; or a pharmaceutically acceptable salt, N-oxide or a prodrug thereof; a pharmaceutical composition comprising it; its use in methods of treatment; use of it for the manufacture of a medicament for treating VR-1 related conditions such as those in which pain and/or inflammation predominate; and methods of treatment using it.

WO 2004/046133 A1